

ABSTRACT OF THE DISCLOSURE

A heat exchange system includes a rotor, a hole, a main tube, and branch tubes. The rotor, the outer surface of which is in contact with a kneaded object, has a heat-exchange chamber therein, in which a heat medium flows. The hole having a diameter less than that of the heat-exchange chamber is formed on one end of the rotor. The main tube is insertable through the hole and communicates with the heat-exchange chamber. Its diameter is determined such that a given space is ensured between the hole and the main tube. Each branch tube extends from the periphery of the main tube towards the surface of the heat-exchange chamber and has an opening on its top end, through which the main tube communicates with the heat-exchange chamber. The branch tubes are flexible to pass through the space when the main tube is inserted or removed.